

ART. VII.—*Short Descriptions of New Land Planarians.*

By ARTHUR DENDY, D.Sc., F.L.S.

[Read August 13, 1891.]

The object of the present communication, is to describe as briefly as possible some new species and varieties of land planarians which have come to hand since I read my last paper on the subject before this Society.* The specimens described were collected by Professor Spencer, Messrs. C. French, F.L.S., H. Grayson, and C. C. Brittlebank, to all of whom I wish to express my indebtedness. The most interesting of the new species is *Rhynchodemus simulans*, collected by Mr. Brittlebank at Myrning, near Bacchus Marsh, Victoria. With the exception of the single specimen of *Rhynchodemus victoriae* obtained by Professor Spencer in the Croajingolong district, not very far from the New South Wales border, and described by me in a previous communication,† this is the first time the genus *Rhynchodemus* has been met with in Victoria. I hope on a future occasion to be able to publish figures of all the new species and varieties.

Geoplana ventrolineata, n. sp.

Body, when crawling, almost circular in section, tapering gradually at either extremity; length about 23 mm.; greatest breadth little over 1 mm. Eyes arranged as usual, and continued for a long way down the body in the light lateral line. Peripharyngeal aperture (in spirit) at about the junction of the middle and posterior thirds of the body; genital aperture somewhat nearer to the peripharyngeal aperture than to the posterior end.

Dorsal surface very dark grey, almost black, with two very narrow lines of light greyish, one on either side of a median dark grey line of about equal width. There are two similar narrow lines of pale grey, one on either side of the body, just visible from the dorsal surface.

Ventral surface strongly marked with alternate light and dark longitudinal bands, arranged as follows:—In the middle

* "Transactions of the Royal Society of Victoria," June 11, 1891.

† "Transactions of the Royal Society of Victoria," May 8, 1890.

line a rather narrow band of light yellowish grey; on each side of this, a band of about twice the width of much darker brownish, or almost purplish, grey; outside each of these again, a rather narrow band of light yellowish grey; then a narrow dark band of brownish grey and then the light lateral line already mentioned.

Anterior extremity nearly black.

This beautiful and well marked little planarian was found in abundance by Mr. H. Grayson in Brunning's Nursery Garden, St. Kilda, Victoria, in July and August 1891. Probably it was introduced with plants from some other locality, but it is impossible to say whence. It is an interesting fact that Mr. Grayson also found a number of specimens of the blue-tipped variety of *G. cœrulea* in the same locality; the history of this variety, also probably introduced, is given in my last paper on the subject.

Geoplana dubia, n. sp.

Body shaped as in *G. hoggii* and its allies. Length, when crawling, about 50 mm.; greatest breadth, 3 mm. Eyes arranged as usual, distinct and numerous. Peripharyngeal aperture (in spirit) well behind the middle of the body, but in front of the junction of the middle and posterior thirds; genital aperture doubtful.

The ground colour of the dorsal surface is rather pale yellow, with a tinge of green, especially in the middle line. Only two stripes are present, corresponding in position and appearance to the two inner stripes of *G. hoggii*; they are broad, deep blue-green in colour, and situate one on either side of a somewhat narrower band of ground colour.

The ventral surface is pale yellow, and the anterior extremity brown.

This form closely resembles *Geoplana hoggii* without the dark outer stripes, and may be only a variety of that species (or of *G. sulphurea*). It is readily distinguishable from *G. mahoni* by the dark stripes being of a green colour and *much closer together*. One specimen only was obtained by Professor Spencer and Mr. C. French near Narrewarren, South Gippsland, Victoria, in July 1891.

Geoplana alba, var. *roseolineata*, nov.

This very beautiful variety resembles small specimens of the typical *G. alba*, with the addition of two narrow bright

red lines running all down the dorsal surface of the body, and dividing it longitudinally into three almost equal parts. Several specimens were obtained, the usual size of which when crawling was about 35 mm. in length, and 1.5 mm. in greatest breadth. The body was more cylindrical than in fully grown typical examples of *G. alba*.

The specimens look as if they were young. One, considerably larger than the remainder, has the red stripes less distinct. On the other hand, I have seen small specimens of *G. alba* from other localities coloured in the typical manner, without any red stripes.

All the specimens of the variety *roseolineata* were obtained along the railway line between Korumburra and Loch, South Gippsland, Victoria, by Professor Spencer, July 1891.

Geoplana howitti, var. *obsoleta*, nov.

Body tapering gradually in front, much more abruptly behind. Ventral surface very flat, dorsal surface very strongly arched. Length, when crawling, about 40 mm.; greatest breadth, about 3 mm. Opening of peripharyngeal chamber (in spirit) somewhat behind the middle of the ventral surface: genital aperture about half-way between the peripharyngeal aperture and the posterior end. Eyes sparingly arranged, almost in a single row, on the sides of the head (? round the front also).

The ground colour of the dorsal surface is rather deep primrose yellow, and there are only two, dark chestnut brown stripes, one on either side of a somewhat wider median band of clear ground colour. Outside the dark stripes the ground colour is flecked with minute specks of a lighter chestnut brown; at each side of the head these specks run together to form an almost continuous but irregular stripe for a short distance.

The ventral surface is nearly white, with no markings, and the anterior extremity is reddish brown.

This variety differs from the type of *Geoplana howitti* in the absence of the outer dark stripes. In one of the two specimens obtained the dark specks also are only faintly indicated.

Both specimens were collected by Professor Spencer and Mr. C. French near Narrewarren, South Gippsland, Victoria, July 1891.

Geoplana ada, var. *extralineata*, nov.

I propose this name for two small specimens of *G. ada* with chestnut brown stripes but differing from the typical form in the possession of an additional fine brown stripe on each side, a little outside the broad one. The peripharyngeal aperture (in spirit) is situate at about the middle of the ventral surface, and the genital aperture about half way between it and the posterior end.

Both specimens were collected by Professor Spencer and Mr. C. French near Narrewarren, South Gippsland, Victoria, July 1891.

Rhynchodemus simulans, n. sp.

Body oval in section, a good deal flattened when at rest, more cylindrical when crawling; tapering gradually in front to the horse-shoe shaped anterior extremity, and more abruptly behind. Eyes two, as usual in the genus, one on either side, a little way behind the anterior extremity. Length, when crawling, about 22 mm.; greatest breadth, 1.5 mm. Peripharyngeal aperture (in spirit) well behind the middle of the ventral surface, but not quite as far back as the junction of the middle and posterior thirds of the body. Genital aperture slightly nearer to the posterior extremity than to the peripharyngeal aperture.

Dorsal surface dark grey, darker in the middle line; spotted or mottled all over (in the middle line as elsewhere) with small specks of white, giving it a beautiful and characteristic marbled appearance under a low power of the microscope.

Ventral surface marbled like the dorsal, but with the white predominating instead of the grey. Anterior extremity greyish.

A good many specimens of this beautiful little species were obtained by Mr. C. C. Brittlebank at Myrning, near Bacchus Marsh, Victoria, in July and August 1891. It is an extremely small species and, owing to the quantity of black pigment present, I had considerable trouble in determining the number of the eyes, so that at one time I considered it as belonging to the genus *Geoplana*. Serial sections, cut by the paraffin method, however, at once decided the question in favour of *Rhynchodemus*.